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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO. |
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| 09/753,077      | 03/12/2001  | James H. Wang        | 11302-1050<br>(44040-251536) | 3503             |

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EXAMINER

MULLIS, JEFFREY C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1711

DATE MAILED: 07/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MF=10

# Office Action Summary

Application No.

09/753,077

Applicant(s)

WANG ET AL.

Examiner

Jeffrey C. Mullis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-333 is/are pending in the application.
- 4a) Of the above claim(s) 3, 6, 8-11, 13 and 21-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Appendix A

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Applicant's election of Group I as well as the species of polyethylene glycol methacrylate as the polar monomer; polyhydroxyalkanoate as the biodegradable polymer and polyvinyl alcohol as the water soluble polymer and grafted water soluble polymers and specifically poly(beta-hydroxybutyrate-co-beta-hydroxy valerate) grafted with polyethylene glycol methacrylate and blended with polyvinyl alcohol grafted with polyethylene glycol methacrylate in Paper No. 9 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The search has been extended to polyhydroxybutyrate grafted with carbonyl containing monomers as the biodegradable polymer and methacrylates as the water soluble polymer.

M Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The term "water soluble" renders the claims unclear since water solubility is a matter of degree and therefore relative and it cannot therefore be objectively determined what amount of solubility would be embraced by the term "water soluble".

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The term "analog" or "analogs" renders the claims unclear since it is subjective as to when one material is an analog of another.

Claim 33 is unclear since this claim is ambiguous as to what materials are meant to be in combination with each other. For instance when 33 could be interpreted as requiring a combination of polyethylene oxide and modified polyhydroxyalkanoate or merely reciting that polyethylene oxide can be in a blend with any material or polyhydroxyalkanoate can be in a blend with any other material etc. Furthermore, since these materials are intended to be in the form of a blend, it is not clear what is intended by "or mixture thereof" given that blends are mixtures.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the

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time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Avella et al. (CAPLUS AN 1998: 605333).

Avella et al. disclose a composition containing polymethyl methacrylate and polymethyl methacrylate grafted to PHP, embraced by applicants' grafted biodegradable polymer. With regard to the polymethyl methacrylate, the monomer from which this polymer is made is fairly polar since it has a carboxyl group and is esterified by an alcohol having only a single carbon atom (namely methanol). Therefore it would reasonably appear to have at least a slight water solubility and therefore embraced by applicants' characteristic of "water soluble".

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy

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reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ 2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 4, 5, 7, 12, 14-20, 32 and 33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over all claims of copending applications 09 series 753,077, 752,810, 753,223 and 753,076. Although the conflicting claims are not identical, they are not patentably distinct from each other because choice of the species of one application over the other would have been obvious to a practitioner having ordinary skill given the fact that the various species overlap and embrace each other.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Wang et al. (US 5,945,480), cited of interest, discloses applicants non-elected species.

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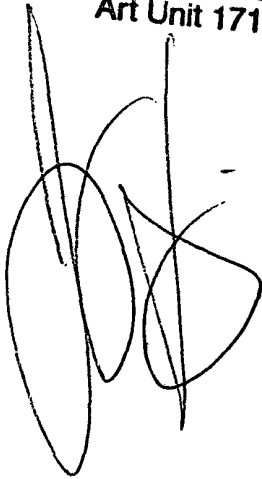
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Any inquiry concerning this communication should be directed to Jeffrey Mullis at telephone number (703) 308-2820.

J. Mullis:cdc

June 26, 2002

**Jeffrey Mullis  
Primary Examiner  
Art Unit 1711**

A handwritten signature in black ink, consisting of a large, stylized 'J' and 'M' intertwined, with a vertical line extending upwards from the 'M'.